RESPONSE TO COMMENTS ON THE STAFF WORKING DRAFT OF THE TENTATIVE NPDES PERMIT AES REDONDO BEACH LLC REDONDO BEACH GENERATING STATION NPDES PERMIT NO. CA0001201

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AES Redondo Beach (Discharger)	1	Order Location: General Comment General Issue: The new Order is intended to be implemented 1 August 2016. August is mid-quarter, mid-summer, and late in the calendar year, all of which are monitoring periods specified in the new Order. This could lead to confusion over the initial implementation. Solution: AES recommends that the new Order specify that all 1/quarter monitoring elements be implemented beginning 1 October 2016 and that all annual and semiannual monitoring will commence 1 January 2017.	The request to delay the effective date of this Order by two months to October 1, 2016 so as to coincide with the quarterly monitoring schedule is feasible. The effective date is changed to October 1, 2016 throughout.	throughout t	Commented [MB1]: This is fine. However, please extend the expiration date by the same imeframe if you want permit coverage for the full 5-year period.
AES Redondo Beach (Discharger)	2	Order Location: Pages 4 and 7, Section IV.A.1 - Tables 4 and 7, Effluent Limitations for 001 and 002 General Issue: Footnote 4 and 6, respectively indicates the mass limitation should be calculated using the permitted discharge flow of 224 MGD for Discharge Point 001. This is inconsistent with the permitted discharge flow reported on page 3 (i.e. 215 MGD), which is the correct flow rate.	The prior order and the Report of Waste Discharge (ROWD) submitted by the Discharger both indicate that the permitted discharge should be 215 MGD for Discharge Point 001. References to 224 MGD are corrected to 215 MGD throughout this Order.	Permitted discharge flow for Discharge Point 001 is set at 215 MGD throughout this Order.	

eleted: Alamitos Generating Station

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		Solution: Ensure there is consistency of permitted discharge flow throughout the permit. The correct flow for Discharge Point 001 is 215 MGD.		
AES Redondo Beach (Discharger)	3	Order Location: Pages 4 and 7, Section IV.A.1-Tables 4 and 7. PCB Discharge Prohibition General Issue: The Tentative Order proposes a strict discharge prohibition on PCBs in discharges from AES. This prohibition is inconsistent with the waste load allocations developed for Santa Monica Bay TMDL for DDTs and PCBs. While the Tentative Order Fact Sheet explains that the more stringent technology based effluent limit established by USEPA has been applied as a discharge prohibitions in the Tentative Order, the RWQCB does not appear to account for the background concentrations of PCBs in Santa Monica Bay TMDL for DDTs and PCBs. AES is unique in that the primary discharge covered under the Order is intake water generated from Santa Monica Bay water used for once through cooling (OTC) water. Because background PCB concentrations have been documented in the TMDL and AES NPDES Permit discharges are directly affected by the quality of Bay water, background concentrations must be accounted for in any effluent limits prescribed for AES. As the RWQCB notes in the Tentative Order Fact Sheet, intake water from Santa Monica Bay represents more than 99% of the permitted discharge flows from the AES site. This process to account for background intake water	As explained in Section .IV.B.2.b.i of Attachment F, 40 C.F.R. section 423.13(a) states that, with regard to steam electric power generating point sources, "There shall be no discharge of polychlorinated biphenyl compounds (PCBs) such as those commonly used for transformer fluid." Regional Water Board staff find that this Effluent Limitation Guideline (ELG) has been appropriately applied as a technology-based effluent limitation for Discharge Points 001 and 002. Furthermore, PCBs have not been detected during annual effluent monitoring at Discharge Points 001 and 002. Therefore, monitoring data demonstrate that the Discharger is able to meet the new, more stringent effluent limitations for PCBs.	None taken.

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AEC	4	quality would be similar to the process described in the 2010 USEPA Permit Writers Manual. Solution: To account for the potential that background concentrations of PCBs in Santa Monica Bay used for once through cooling water could cause a detection of PCBs in effluent discharge samples, the RWQCB should allow for consideration of background concentrations if there is detection of PCBs from one of the AES effluent discharge locations.	The Discharger has also addressed this issue in an	Toptotivo
AES Redondo Beach (Discharger)	4	Note: the table referenced in this comment can be viewed in the comment letter from the Discharger. Order Location: Page 6, Section IV.A.1 - Table 5, pH Limitation for Low Volume Wastes General Issue: The new Order prescribes a new instantaneous minimum and maximum effluent limitation for pH of 6.0 and 9.0, respectively for low volume wastes. The existing Order does not have pH limits for low volume wastes. The new Order is intended to be implemented in August 2016 and the new pH limitation requires a costly investment to implement engineering controls in order to manage the retention basin pH levels between 6 and 9. Historical data shows that our pH is always near or slightly above the upper threshold of this limit. As the data below shows, during the last three years there were 16 instances where the pH was above 9, the upper threshold of the new limitation. AES currently	The Discharger has also addressed this issue in an updated Request for a TSO. The effluent limitation for low volume wastes for pH of 9.0 s.u. instantaneous maximum is a new effluent limitation in this Order. The Discharger has provided monitoring data that demonstrate they will be unable to immediately comply with the new limitation. Therefore a Discharge is taking place or threatening to take place that violates or will violates requirements prescribed by the Regional Water Board. The tentative TSO is edited to allow until July 1, 2017, for the Discharger to evaluate potential options and design and construct engineering controls necessary to achieve compliance with the new limit.	Tentative TSO edited to allow until July 1, 2017, for the Discharger to come into compliance with the final pH instant- aneous maximum effluent limitation for low volume wastes.

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AES	5	cannot comply with the new pH limitation requirement and engineering controls cannot be designed, installed, and put into place by 1 August 2016. Solution: AES recommends the new Order provide a pH range of 6-10 for low volume waste, or in the alternative, add to the TSO that the pH limitation will have an effective data of 1 July 2017. This recommended compliance schedule will provide AES the time to evaluate potential options, design and construct potential engineering controls. Note: the table referenced in this comment can be	The Discharger has also addressed this issue in an	Tentative
Redondo Beach (Discharger)	5	Note: the table referenced in this comment can be viewed in the comment letter from the Discharger. Order Location: Page 7, Section IV.A.1 - Table 7, pH Limitation for 002 General Issue: The new Order prescribes a new instantaneous minimum and maximum effluent limitation for pH of 6.5 and 8.5, respectively, for Discharge Point 002. The existing Order has pH limits of 6.0 and 9.0 which are allowed under the Ocean Plan. Based on historical monitoring data, AES cannot achieve the pH limits being proposed in the new Order. Data shows, AES has exceeded the proposed upper limit five times in 2015 (samples collected in February, March, May and June). Given that these samples were collected early in the year before the long summer run, AES believes that these elevated pH readings were the result of the intake water rather than AES contributions. The effluent	The Discharger has also addressed this issue in an updated Request for a TSO. Outfall 002 discharges to King Harbor, an inland surface water. Criteria for pH listed in the Basin Plan are applicable to discharges to inland surface waters. The Basin Plan includes 6.5 -8.5 s.u. as the criteria for pH. The effluent limitation for Discharge Point 002 for pH of 8.5 s.u. instantaneous maximum is a new effluent limitation in this Order. The Discharger has provided monitoring data that demonstrate they will be unable to immediately comply with the new limitation. Therefore a Discharge is taking place or threatening to take place that violates or will violates requirements prescribed by the Regional Water Board. The tentative TSO is edited to allow until December 31, 2020, for the Discharger to achieve compliance with the new limit by permanently shutting down Units 7 and 8.	Tentative TSO edited to allow until December 31, 2020, for the Discharger to come into compliance with the final pH instant- aneous maximum effluent limitation for Discharge Point 002.

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		monitoring results showing the five results and several others close to the limit are shown in the table below: Solution: AES recommends the new Order maintain the existing permit effluent limitation for pH of 6.0 to 9.0 or, in the alternative, that the pH limits for the Discharge Point 002 be included in the TSO, allowing AES Redondo Beach until December 31, 2020 to comply with the limits.		
AES Redondo Beach (Discharger)	6	Note: the table referenced in this comment can be viewed in the comment letter from the Discharger. Order Location: Page 7, Section IV.A.1 - Table 7, Effluent Limitations for 002 General Issue: From 2012 to present, 8 monitoring events have taken place at Discharge 002. For each event, AES has collected intake and effluent samples to evaluate whether the receiving water may be the source of high metals levels. AES has prepared a summary table showing the analytical results from the intake and effluent 002 for Copper, Mercury, Nickel, Silver, Thallium and Zinc. This table, presented below, shows detections that are above a proposed limit. As seen in the table, the majority of times that effluent water has exceeded limits are tied to either detection limits higher than a proposed new limit (Mercury) or detections in the intake water exceeding detections at the outfall (Copper, Nickel, Zinc). AES does not control the quality of the water being drawn	The request for intake credits for the discharge occurring at Discharge Point 002 is noted. The discharge at Discharge Point 002 is subject to the provisions of the SIP. The SIP allows for the Regional Water Board to establish effluent limitations allowing the Facility to discharge a mass and concentration of a pollutant that is no greater than the mass and concentration of the intake water when certain conditions are met including the following: 1. The intake water concentration of the pollutant exceeds the most stringent criteria for that pollutant 2. The intake water credits provided are consistent with any TMDL applicable to the discharge (note: there are no effective TMDLs applicable to the discharge of priority pollutants from Discharge Point 002) 3. The intake water is from the same water body as the receiving water body	Added a footnote to Table 7 of this Order allowing for intake credits for copper if the conditions are met.

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		in from the Harbor and, based upon the data shown, we believe all of the detections in this table at the Outfall above proposed permit limits may actually be a result of levels occurring in the intake water, even if not instantaneously captured at the time of sampling. The TSO provides some relief for copper, nickel, and temperature for discharge 002, but historic data as shown above still presents some copper exposure. The historic levels as shown in Table F-2 are higher than the TSO allowances. Additionally, the silver effluent limits in Tables 7 and F-18 for 002 are higher than the historic measurements listed in Table F-2. All of these parameters of concern could be subject to adjustment via intake credits under the SIP (pg. 19) or variances under 40CFR131.10(g). In accordance with the intake credit criteria outlined in the SIP, Discharge Point 002 meets this criterion. Solution: Given the variances in background detections in metals highlighted in the table above, AES requests that intake credits be granted. Further, AES requests that a statistical evaluation be conducted on the intake and discharge concentrations for these detected metals in the dataset provided to evaluate whether there is a significant difference between intake water and outfall concentrations. AES believes that detections of Copper and Zinc above the proposed limits are the direct result of concentrations in the intake water itself and not a contribution from AES systems	 4. The facility does not alter the intake water pollutant chemically or physically in a manner that adversely affects water quality and beneficial uses 5. The timing and location of the discharge does not cause adverse effects on water quality and beneficial uses that would not occur if the intake water pollutant had been left in the receiving water body The Discharger has demonstrated to the satisfaction of the Regional Water Board that the discharge from Discharge Point 002 to King Harbor meets conditions #1 through #5 above for copper. Therefore, if the influent water pollutant concentration of copper (measured at influent to Units 7 and 8) does not exceed the average monthly limitation then the limitations are applied as noted in Table 7 of the tentative Order. A footnote is added that if the influent water pollutant concentration exceeds the average monthly limitation, but does not exceed the maximum daily limitation then compliance with the average monthly limitation will be determined based on intake water credits and compliance with the maximum daily limitation is applied as noted in Table 7. If the influent water pollutant concentration exceeds the maximum daily limitation then compliance with both the average monthly and the maximum daily will be determined based on intake water credits. 	

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AES Redondo Beach (Discharger)	7	Order Location: Page 8, Section IV.A.1 - Table 8, Monitoring Location INT-002A General Issue: It is not clear which in-plant waste stream is considered as monitoring location INT-002A and how the permitted discharge flow was derived. Because it is unclear where this monitoring location is, it is unknown if the flow and mass limitations are accurate. Solution: AES recommends removal of monitoring location INT-002A because there are no known waste streams directed to Discharge Point 002 that aren't already being characterized during sampling at this point of compliance. This includes removal of this monitoring location from Table E-1 as well.	Monitoring Location INT-002A was included in this Order based on an understanding that waste streams were directed from the retention basin to Discharge Point 002. The Discharger has subsequently demonstrated that this does not occur and therefore establishing Monitoring Location INT-002A is not necessary. This location has been removed from this Order.	Monitoring Location INT-002A has been removed from this Order.
AES Redondo Beach (Discharger)	8	Order Location: Page 11, Section V.B.2, Surface Water Limitation for 002 General Issue: The surface water limitations indicates the discharge from AES shall not cause "the surface water temperature to rise greater than 4°F above the natural temperature of the receiving waters at any time or place. Elevated temperature waste discharges either individually or combined with other discharges shall not create a zone, defined by water temperature of more than 1°F above natural receiving water temperature, which exceeds 25 percent of the cross-sectional area of a main river channel at any point." AES cannot comply with the proposed receiving water limitations.	The Discharger has also addressed this issue in an updated Request for a TSO. The receiving water limitations for temperature are new effluent limitations in this Order. The Discharger has provided monitoring data that demonstrate they will be unable to immediately comply with these new limitations. Therefore a Discharge is taking place or threatening to take place that violates or will violate requirements prescribed by the Regional Water Board. The tentative TSO is edited to allow until December 31, 2020, for the Discharger to achieve compliance with the new limits by permanently shutting down Units 7 and 8 as dictated by the Once-Through Cooling Water Policy.	Tentative TSO has been edited to allow until December 31, 2020, for the Discharger to come into compliance with the final receiving water temperature limitations.

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		Solution: The surface water limitation should be omitted or added to the TSO.		
AES Redondo Beach (Discharger)	9	Order Location: Page 11, Section V.B.3, Bacterial Objectives General Issue: The bacterial objectives are inconsistent with the sampling objectives discussed on Page 9 and defined in Attachment E. Nonetheless, since AES is not a contributor of bacteria, and there have been no identified bacteria impairments for Santa Monica Bay or King Harbor, bacteria monitoring requirements should be removed from this Tentative Order. Solution: The bacterial objectives should be removed from the New Order since AES is not a contributing source of bacteria and the receiving water has not been identified as being impaired, providing no basis for bacteria monitoring requirements.	The Water Contact Standards for bacteria in Section V.B.3 are for waters designated for non-contact recreation (REC-2) and not designated for water contact recreation (REC-1). The Basin Plan designates both REC-1 and REC-2 beneficial uses for King Harbor. Therefore the Water Contact Standards in this section do not apply to King Harbor and are removed from this Order. The Basin Plan, however, establishes water quality objectives (WQOs) for receiving waters designated for REC-1 use. These WQOs are therefore established as receiving water limitations in this section. As explained in Section IV.C.7.b Attachment F of this Order, bacterial monitoring of the discharge from Discharge Point 002 is included to confirm that the discharge is not contributing to an impairment of the receiving water environment.	Correct receiving water limitations for bacteria to the appropriate Basin Plan WQOs in Section V.B.3 of the Order.
AES Redondo Beach (Discharger)	10	Order Location: Page 16, Section VI.C.2.b, Mixing Zone and Dilution Credit Study General Issue: The new Order requires AES to complete a mixing zone study and dilution credit study workplan. It indicates "The study shall identify the boundary of zone of initial dilution (ZID) based on modeling results, and include monitoring upstream of the discharge point, directly above the discharge location, at the boundary of the ZID, and outside the	The intake for Discharge Point 001 is King Harbor and the receiving water is the Pacific Ocean, therefore concentrations in source and receiving waters cannot be assumed to be the same. The prior order included a dilution ratio of 11.5:1, that was applied in calculating effluent limits. This Order retains the dilution ratio from the prior order for Discharge Point 001 only.	Require- ment for a mixing zone study removed throughout this Order.

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		ZID for the list of constituents included in Table 1 of the Ocean Plan, to confirm the assumptions made by the model." Most, if not all, of the Table 1 pollutants are not added to the effluent by the plant. Therefore, the system is taking in water with the same pollutant concentrations (+/-) as the receiving waters so no dilution is possible. The whole premise of the monitoring listed is invalidated as no dilution will occur when the concentrations in source and receiving waters are the same with no input from the plant.	The dilution ratio estimate previously established was based on memorandums from Southern California Edison in 1979. The estimate used limited ambient temperature data to extrapolate typical plume behavior. Significant changes to the amount of wastewater discharged, the configuration of the outfall and the composition of the discharge will affect the dilution observed. Therefore, the discharger would be required to validate the 1979 estimate by conducting an appropriate mixing zone study if the discharge continues.	
		Furthermore, in the fact sheet (page F-25) it indicates that the dilution ratio has been retained from the previous Order which is inconsistent with the requirements discussed above. If this statement in the fact sheet is inaccurate and a study is required, it not only is an added cost of approximately \$100,000+, (includes workplan development to be submitted to board, field testing, modeling and report compilation) it is redundant work since the study was completed by SCE. The results would be similar since operations and discharge volume have not changed at the plant. Lastly, as noted above, AES Redondo Beach plans to comply with the State's OTC policy by ceasing use of once-through-cooling by 31 December 2020 so if this study is to provide credits for future permit, it is not necessary. Solution: The dilution ratio used in the existing	However, since the purpose of the mixing zone study is to validate the dilution ratio estimate that will be used in calculating effluent limitations for the next permit cycle, and the Discharger has indicated that the discharge will cease by December 31, 2020, Regional Water Board staff conclude that the mixing zone study is not necessary. Therefore the requirement for a mixing zone study is removed throughout this Order contingent on the Facility ceasing operation. If it is determined that the Facility will be repowered as originally reported, the Discharger must provide notification to the Regional Water Board as well as a work plan to complete a mixing zone study.	
		Solution: The dilution ratio used in the existing Order should be maintained as stated in the fact sheet. Alternatively, if the study is required, it is		

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		recommended the Table 1 pollutant monitoring provision be removed.		
AES Redondo Beach (Discharger)	11	Order Location: Page 18, Section VI.C.6.a, General Permit Coverage General Issue: AES has obtained coverage under General Permit No. CAS000001 (IGP) for the area associated with discharge point D1, as previously agreed with the RWQCB. IGP coverage is based on the potential to discharge storm water associated with industrial activities performed at a site. Areas of the AES site where power generating activities take place and there is potential for exposure of those activities to storm water are covered under an Individual NPDES Permit. The tributary area for discharge point D1 consists of two inactive basins (all storm water contained within basins) and a paved access road. D1 also receives contribution from an area under the control and management of Southern California Edison (SCE). Solution: AES plans to terminate coverage under the IGP for this small non-industrial area of the site, but will continue to implement appropriate BMPs for the area and maintain a storm water pollution prevention plan for the entire site. AES will also continue to coordinate with SCE to confirm that appropriate BMPs are implemented for the SCE owned and operated property that contributes the majority of storm water flow to D1. There will be no need to maintain coverage under the IGP as long as industrial	The Discharger has documented that continued enrolment under the General Industrial Permit is no longer necessary and a Notice of Termination will be filed. Therefore, Section VI.C.6.a, requiring the Discharger to maintain coverage under General Permit No. CAS000001, is removed. The requirement to submit an updated Storm Water Pollution Prevention Plan (SWPPP) is retained from the prior order. The SWPPP must be updated to address the area associated with Discharge Point D1. The SWPPP must list potential contaminants from the area, Best Management Practices implemented, inspections and upgrades. If there are no changes to the SWPPP, the existing SWPPP may be resubmitted with notification that the Discharger will continue to implement it.	Section VI.C.6.a, of this Order has been edited to clarify SWPPP require- ments.

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		activities are not occurring within the tributary area. AES requests that the requirement to maintain coverage under the IGP be removed from the Order, and AES will submit a Notice of Termination for the IGP to the SWRCB and RWQCB. Additionally, the requirement to submit the SWPPP should also be removed, as it's currently publically available through SMARTs and the practices have already been implemented.		
AES Redondo Beach (Discharger)	12	Order Location: Attachment A, Page A-4, Satellite Collection System General Issue: The definition for satellite collection system exists in this New Order and likely was incorporated because of cross-over from the AES Alamitos permit. This can cause confusion amongst permit readers and give a false impression that there is a sanitary sewer system onsite. Solution: Remove the definition for satellite collection system.	Attachment A includes Standard Definitions attached to all NPDES permits. Not all Standard Definitions apply to all facilities and Standard Definitions do not impose any requirements that are not applicable to this facility. Hence, the Standard Definitions section will not be edited.	None taken.
AES Redondo Beach (Discharger)	13	Order Location: Attachment C, Pages C-1 through C-3, Flow Schematic General Issue: The flow schematic has been updated to show modifications to original operations. The corrections made will impact estimates for internal flow and therefore mass-limitations will need to be revised accordingly.	The revised flow schematic provides a more accurate description of waste flow within the Facility as currently operating, including volumes. The flow schematic has been replaced with the revised one and mass-limitation calculations have been updated throughout this Order as necessary.	Inserted revised flow schematic and updated mass- limitation calculations.

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		Solution: Include the revised flow schematic (included as an Attachment) and ensure consistency throughout the new Order.		
AES Redondo Beach (Discharger)	14	Order Location: Attachment D, Pages D-7, 8, and 10; Sections V.E. 1, V.H, and VII.B, Standard Provisions General Issue: Sections V.E.1 and V.H about twenty-four hour reporting and reporting instances of noncompliance include reporting requirements for combined sewer overflows and sanitary sewer overflows. Section VII.B. is geared specifically toward Publically-Owned Treatment Works (POTWs). Similar to above, this can cause confusion amongst permit readers and give a false impression that there is a sanitary sewer system onsite. Solution: Remove any reference to sanitary sewer systems or treatment works treating domestic sewage.	Attachment D includes Standard Provisions attached to all NPDES permits. Not all Standard Provisions apply to all facilities and Standard Provisions do not impose any requirements that are not applicable to this facility. Hence, the Standard Provisions section will not be edited.	None taken.
AES Redondo Beach (Discharger)	15	Order Location: Attachment E, Section II - Table E- 1, Monitoring Locations General Issue: The description for monitoring location 001A does not specify that this is the retention basin. Stating that the sample should be collected at a location from the retention basin where a representative sample of all low flow volume can be obtained would remove ambiguity over whether or not this refers to the retention basin or some other internal waste stream. Additionally, the table includes	The comment is correct in stating that clarifying language better describes this waste stream. Therefore the description for monitoring location INT-001A has been edited as requested. As discussed in Response to Comment #7 above, INT-002A has been removed from this Order.	Edited description of monitoring location INT-001A and deleted monitoring location INT-002A from Table

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		monitoring location INT-002A; however, it is unclear where this location is onsite. There is no discussion elsewhere in the permit referencing location of this discharge point. The low volume wastes are being captured at INT-001A and is the only retention basin in service. Solution: Revise the description for discharge point 001A and remove monitoring location INT-002A.		E-1 of Attachment E.
AES Redondo Beach (Discharger)	16	Order Location: Attachment E, Section IV - Tables E-3, E-4, and E-5, Monitoring Requirements General Issue: The RWQCB has significantly increased the minimum sampling frequency for a number of parameters associated with effluent monitoring locations EFF-001, EFF-002, and for the in-plant waste stream monitoring location. The most significant increase is associated with the sampling frequency for metals prescribed for EFF-001, INT-001A, and EFF-002. The existing Order requires a minimum sampling frequency of one time per reporting year, while the Tentative Order proposes to increase the sampling frequency to one time per month without providing an appropriate basis. The proposed increase in monitoring frequency is also inconsistent with the semi-annual monitoring frequency prescribed in Appendix III of the Ocean Plan. To the extent that additional data is necessary to confirm there is no Reasonable Potential for many of the metals to exceed established water quality objectives, Ocean Plan, Appendix III clearly specifies	The request to reduce monitoring frequency for a number of parameters at locations EFF-001 and EFF-002 is noted. The discharge to Santa Monica Bay at monitoring location EFF-001 is subject to the provisions of the Ocean Plan. As indicated by the Discharger, Appendix E, Section 5.1 of the Ocean Plan states that for point source discharges of greater than 10 MGD monitoring of Ocean Plan Table 1 substances shall be required at least semiannually. The Regional Water Board conducted a Reasonable Potential Analysis for Ocean Plan Table 1 pollutants using monitoring data provided by the Discharger. The only pollutant determined to have reasonable potential (Endpoint 1) was beryllium and an effluent limitation was calculated for that pollutant. The only pollutant determined to have no reasonable potential (Endpoint 2) was copper and that effluent limitation was removed. The other pollutants resulted in an inconclusive RPA (Endpoint 3) and therefore	The monitoring frequency at location EFF-001 for Ocean Plan Table 1 pollutants other than beryllium has been changed to 2/year in Table E-3. None taken with regard to Table E-5 (monitoring location EFF-002).

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		semi-annual monitoring for sites with permitted discharges of 10 MGD or greater. The RWQCB's proposed changes to the monitoring program represent more than 300 additional sample/parameter combinations, and more than \$50,000 annually in laboratory fees alone, not to mention the significant resources needed to collect samples and manage the additional data and reporting obligations. There is not an appropriate basis for the significant increase in sampling frequency, which has a direct and significant impact on AES resources. The increase in minimum sampling frequency for the in-plant waste streams also lacks basis, considering that the waste streams commingle with discharges that are already monitored in the designated effluent monitoring locations. Within the fact sheet, it indicates that low flow volume waste streams are required to have technology based effluent limits, including limits for pH, O&G, and TSS. The sampling of additional parameters is arduous and not required for low volume wastes. Solution: The minimum monitoring frequency prescribed in the existing Order should be maintained or increased to a semi-annual frequency, if required based on the Ocean Plan.	effluent limitations for pollutants with effluent limitations from the prior order were retained. The effluent limitation for beryllium based on Ocean Plan WQOs is a 30-day average limitation. Therefore, with reasonable potential and a 30-day average limitation monthly monitoring is required for beryllium. The effluent limitations for other Ocean Plan pollutants are 6-month median limitations. The prior order established semi-annual monitoring for these pollutants. Therefore, the monitoring frequency for these pollutants has been changed to 2/year in this Order. The increased monitoring frequency to 1/month for certain priority pollutants at monitoring location EFF-002 is appropriate due to the fact that an RPA was conducted that demonstrated reasonable potential for these pollutants. The new, mass-based effluent limitations for low volume wastes are required at Section 8.d of the Ocean Plan. As discussed above the monitoring frequency for beryllium is established at 1/month and for the other Ocean Plan pollutants the monitoring frequency has been changed to 2/year in Tables E-3 and E-4 of Attachment E.	The monitoring frequency at location INT-001A for Ocean Plan Table 1 pollutants other than beryllium has been changed to 2/year in Table E-3 and Table E-4.
AES Redondo Beach	<mark>17</mark>	Order Location: Attachment E, Section IV.A.1-Table E-3, Groundwater Dewatering Location (INT-001B)	The request to remove monitoring requirements for the groundwater discharges at monitoring location INT-001B is noted.	Ground- water monitoring

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(Discharger)		General Issue: The RWQCB has identified new monitoring requirements for groundwater extracted by the well point system. The Tentative Order incorrectly states that the Existing Order did not address this groundwater discharge. To the extent that the groundwater discharge is primarily associated with seawater intrusion barrier injection managed by the LA County Flood Control District (LACFCD), and generates a relatively consistent discharge stream, the groundwater is characterized when discharge samples are collected at EFF-001, which is the point of compliance for the NPDES Permit. Monitoring at EFF-001 provides the RWQCB information to assess the potential impacts to beneficial uses of the receiving water. Furthermore, the source and volume of the groundwater is not generated by or under the control of AES and there is no sample location that would provide results representative of this groundwater.	The groundwater discharge from the Well Point System dewatering was included in the prior order as part of the low volume wastes. New information from the Discharger, however, indicates that the groundwater is discharged directly at a rate of up to 5 MGD to the comingled waste stream for Discharge Point 001 independent of low volume wastes. The Discharger also indicates that there is not a sample location that would provide results representative of groundwater prior to comingling with the other waste streams. In consideration of new information provided by the Discharger the groundwater monitoring requirements were removed and the descriptions of the groundwater discharge corrected throughout this Order.	have been corrected	commented [MB3]: Is there a sampling point hat can capture only the Low Volume Waste as ELGs apply there)? Therwise, this is fine to remove the intended in the conitoring point for dewatering.
		Solution: Due to the infeasibility to sample the groundwater, AES recommends removing the monitoring requirements for groundwater discharges (INT-001B).	The Regional Water Board finds that monitoring of the comingled discharge at monitoring location EFF-001 will detect any pollutants contained in the groundwater discharge. Should pollutants contained in the groundwater discharge raise the concentration in the final effluent a violation of the effluent limitations will result.		
AES Redondo Beach (Discharger)	18	Order Location: Attachment É, Section IV.A.1-Table E-3, Flow Monitoring Requirements	More frequent monitoring of the flow of low volume wastes from the retention basin at location INT-001A is appropriate. The frequency is changed to daily.	Frequency of flow monitoring at location INT-001A	

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		General Issue: The new order requires flow to be monitored for the low volume wastes at location INT-001A at a minimum frequency of 1/month. Solution: The frequency should be revised to continuous.		set to "daily" in Table E-3 of Attachment E.
AES Redondo Beach (Discharger)	19	Order Location: Attachment E, Section IV - Tables E-3, E-5 and E-11, Bacteria Objectives General Issue: The RWQCB has incorporated new requirements to collect samples and measure for bacteria (total coliform, fecal coliform, and enterococcus) for EFF-001 and EFF-002. The existing Order does not require bacteria monitoring, and based on a comprehensive review of industrial activities performed at the site and waste streams generated, AES does not perform activities that are expected to generate bacteria. The Tentative Order indicates bacteria monitoring was added to confirm that the discharge is not contributing to an impairment of the receiving water, but Santa Monica Bay (EFF-001) and Kings Harbor (EFF-002) are not listed as impaired for bacteria. Solution: With no bacteria sources associated with operation of the power generating plant and no identified bacteria impairments for Santa Monica Bay (EFF-001) or King Harbor (EFF-002), bacteria monitoring requirements should be removed from the Tentative Order.	The prior order was adopted in 2000, and did not include monitoring requirements for bacteria. At that time the discharges for both EFF-001 and EFF-002 were considered ocean discharges subject to requirements of the California Ocean Plan. The 2012 California Ocean Plan includes water quality objectives and monitoring requirements for bacteria that apply to the discharge from EFF-001 to the Santa Monica Bay. The discharge from EFF-002 to King Harbor has been reclassified as an enclosed bay discharge subject to the requirements of the Basin Plan. The Basin Plan includes water quality objectives and monitoring requirements in receiving waters designated for REC-1 use that apply to the discharge from EFF-002 to King Harbor. This Order therefore contains receiving water limitations for bacteria, and annual bacteria monitoring requirements for EFF-001 and EFF-002. These monitoring requirements are not based on Santa Monica Bay or King Harbor being listed as impaired for bacteria, but rather to ensure that the	None taken.

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			discharge is not contributing to an impairment of the receiving water environment.	
AES Redondo Beach (Discharger)	20	Order Location: Attachment E, Section IV - Tables E-3 and E-5, Monitoring Requirements General Issue: Footnote 14 (Table 3) and Footnote 12 (Table E-5) state "When unit startup occurs during the month sampling of low volume wastes shall be performed immediately after unit startup." This request is infeasible for our plant. Unit startup is not at our discretion and often times we obtain less than 24 hour advance notice. Due to the unpredictability of the units running and to assist with managing water levels during the month, it is common practice for AES to sample at the beginning of the month to determine how the basin needs to be managed for the remainder of the month. If there is an exceedance, this method of sampling provides ample time to manage the basin accordingly and to obtain 4 additional samples during the month the exceedance occurred. With the unpredictability of unit start-up, it is not in our best interest or favor to hold off on sampling until a unit is requested to startup, because there are months we do not have units operating at all. Solution: Remove this footnote.	Due to the unpredictability of unit startup described by the Discharger it is infeasible to require that sampling of low volume wastes be performed immediately after unit startup. Therefore, Footnote 14 is removed from Table E-3 and Footnote 13 is removed from Table E-5.	Removed Footnote 14 from Table E-3 and Footnote 13 from Table E-5.
AES Redondo Beach (Discharger)	21	Order Location: Attachment E, Section V.B – Page E-12, Chronic Toxicity	The prior IWC was developed assuming the discharge was an ocean discharge and that the specified dilution credit was applicable. The reclassification of the discharge at Discharge Point	None taken.

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Redundo Beach
Response to Comments on Staff Working Draft

Response to Con	nments	on Staff Working Draft			
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AES Redondo Beach (Discharger)	23	Order Location: Attachment E, Section V.D, and V.F.4 - Pages E-12 and E-13, Chronic Toxicity General Issue: Text indicates the sample's salinity should be artificially altered by the addition of artificial sea salts or brine controls. Solution: Only seawater collected at site should be used with a minimum salinity in accordance with the test method. If ambient salinity is less than the test acceptability threshold, a new sample should be collected when the freshwater source affecting the sample salinity has dried up. The sentence stating "artificial sea salts shall be used to increase sample salinity" should be removed. Additionally, the text stating "Dilution water and control water, including brine controls" should be revised accordingly. Any other reference to use of artificial sea salts/brine controls should also be removed.	The comment is noted and Regional Water Board staff find that the request to use seawater from an uncontaminated seawater is reasonable - Therefore Section V.D. of Attachment E has been edited as requested.	of Attachmen E has beer edited as requested.	Commented [MB5]: The discharger has a choice for DI water as long as the tests meets the acceptability criteria. Specifically, the west coast methods says: "The dilution water used in the toxicity tests may be natural seawater, hypersaline brine (100%) prepared from natural seawater, or artificial seawater prepared from commercial sea salts." Therefore, the permit shouldn't specify one particular source for DI - just that they need to meet control performance. Please make sure this is also changed in the permit (i.e. uncontaminated seawater and not seawater from their site). Deleted: ource Deleted: collected at the site for chronic toxicity testing is reasonable
AES Redondo Beach (Discharger)	24	Order Location: Attachment E, Section V.E - Page E-12, Chronic Toxicity General Issue: The new Order indicates that chronic toxicity is required once per quarter; but prior to implementing the quarterly sampling, a species sensitivity screening shall be conducted monthly for a period of three months. Solution: Due to multiple non-forecasted expenses resulting from the adoption of this Order, it is recommended the species sensitivity screening shall	The comment is noted. The prior order required quarterly chronic toxicity monitoring and annual species sensitivity rescreening. The Discharger indicates that rescreening will take place in May, 2016. This Order requires species sensitivity rescreening every 24 months. If a recent screening has been conducted prior to the adoption of this Order, the most sensitive species determined during that screening event may be used for routine quarterly monitoring until 24 months after the date of that event. Section V.E of Attachment E has been edited to include this provision.	Section V.E of Attachment E has been edited to reflect that recent species sensitivity screening results may be used for	

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		begin at the beginning of 2017. AES will resume testing for the remainder of 2016 using the most sensitive specifies identified during the previous screening (to be completed in May 2016).		routine quarterly monitoring.	
AES Redondo Beach (Discharger)	25	Order Location: Attachment E, Section V.H- Page E- 114, Chronic Toxicity General Issue: The new Order requires that accelerated sampling begin immediately for any summary result of "Fail" for the chronic toxicity testing. The accelerated sampling requires AES to implement a monitoring schedule consisting of four, five consecutive toxicity tests, conducted at approximately two week intervals. As mentioned previously, as a result of the unpredictability of our unit run time, this frequency of testing could be infeasible. Solution: A caveat shall be in place to allow more time to complete accelerated sampling if the units are not running or less samples shall be accepted if five consecutive tests are infeasible.	AES Redondo Beach Generating facility does not run continuously. Hence, discharges may not be consistently available. Accelerated monitoring should end after three months if discharges have not occurred such that five consecutive toxicity tests have been completed at approximately two week periods. Section V.H of Attachment E has been edited to address the intermittent discharge issue.	Section V.H of Attachment E has been edited to address the intermittent discharge issue.	ommented [MB6]: Ok.
AES Redondo Beach (Discharger)	26	Order Location: Attachment E, Section VIII.A.1 Table E-6, Receiving Water Monitoring General Issue: Salinity units are commonly ppt (parts per thousand) or psu (practical salinity units) rather than ppm (parts per million). Reporting in ppm will result in large numbers not easily comparable to measurements from other programs.	The units have been changed to ppt in Table E-6.	Changed salinity units to "ppt" in Table E-6 of Attachment E.	

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		Solution: Require units in ppt or psu rather than ppm.		
AES Redondo Beach (Discharger)	27	Order Location: Attachment E, Section VIII.A.1 Table E-6, Receiving Water Monitoring General Issue: What is the rationale for collecting water samples for chronic toxicity testing at Station RSW-004? As noted, AES Redondo Beach plans to comply with the State's OTC policy by ceasing use of once-through-cooling by 31 December 2020, or seven months prior to this permit's expiration. If this addition is to provide data for a future RPA, it is not necessary, as the next NPDES permit, if needed, will govern an entirely different effluent, once cooling water is removed. Furthermore, Station RSW-004 is located at the mouth of King Harbor, well away from Discharge 002. Toxicity in waters from this station arguably cannot be traced to Discharge 002, especially if waters are collected on a flooding tide. Any TST fails at this location cannot be ascribed to Redondo Beach Generating Station. Solution: If this sampling effort is an effort to inform the RPA to refine the IWC, it should be noted as such and the permit clearly state that Redondo Beach Generating Station is not liable for TST fails at this station. Otherwise, AES requests the removal of the chronic toxicity testing requirement at monitoring location RSW-4 from the Receiving Water Monitoring program.	Due to the reclassification of the discharge from Discharge Point 002 to an inland surface water discharge, this Order incorporates by reference Basin Plan Water Quality Objectives (WQOs) for receiving waters. The Basin Plan contains narrative WQOs for toxicity and references the use of toxicity tests in evaluating the toxicity of receiving waters. Therefore, a receiving water limitation for chronic toxicity is not established in this Order but annual monitoring for chronic toxicity at Station RSW-004 (the station closest to Discharge Point 002) is established. This monitoring will be used to determine reasonable potential during the next permit cycle in the event that the Facility does not cease the discharge as expected and to evaluate the condition of the receiving water in the vicinity of the discharge.	None taken.

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AES Redondo Beach (Discharger)	28	Order Location: Attachment E, Section VIII.C - Page E-19, Bioaccumulation Monitoring General Issue: Native California mussels (Mytilus Californianus) are not frequently available in the area. Available sources of native California mussels are not reliably available either. Transplating native California mussels harvested out of the area may be unproductive if the transplant shocks the mussels due to changes in water quality conditions, especially temperature. This shock could result in mortality. Solution: Naturally occurring mussels (Mytilus spp.) found in the area should be listed rather than California mussels. This will represent those organisms common to the area that have demonstrated survival in the ambient conditions.	Section VIII.C has been edited to replace California mussels (Mytilus Californianus) with naturally occurring mussels (Mytilus spp.) as the species for bioaccumulation monitoring.	Section VIII.C has been edited to replace California mussels (Mytilus Californianu s) with naturally occurring mussels (Mytilus spp.).
AES Redondo Beach (Discharger)	29	Order Location: Attachment E, Section IX.A.2 - Page E-21, Visual Monitoring Requirements General Issue: Item k is infeasible for routine visual monitoring of the receiving water sampling point and would only apply to those points near an outfall or intake. Observations such as k require divers, while the receiving water monitoring is completed from the surface using instrumentation deployed through the water column. Solution: Remove item k from the visual observation requirements, or in the alternative, adjust Item K to indicate that this information will be reported if	The impingement and entrainment assessments required in Section III of Attachment E satisfy the requirement to evaluate the amount of calcareous material removed from the intake structure. Hence, staff has removed Item k from the visual monitoring requirements.	Item k has been removed from Section IX.A.2 of Attachment E.

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		maintenance on the intake tunnel is competed. For example, "If maintenance is done on the intake, a visual report of calcareous material and removal will be included with the quarterly report."		
AES Redondo Beach (Discharger)	30	Order Location: Attachment F, Section I - Table F-1, Facility Information General Issue: The facility contact and authorized person to sign and submit reports should be revised. Solution: Revise contact to Jose Perez, Site Leader, (310)-318-7575.	The correction in Facility contact information is noted. The facility contact and authorized person to sign are changed to Jose Perez, Site Leader, (310)-318-7575 in Table F-1.	Facility contact and authorized person to sign are changed to Jose Perez, Site Leader, (310)-318- 7575 in Table F-1.
AES Redondo Beach (Discharger)	31	Order Location: Attachment F, Section II. A.2.a - Page F-5, Internal Process Wastewater General Issue: The low volume wastes as mentioned, includes waste from boiler blowdown, boiler condensate overboard, reverse osmosis reject water and in-plant drains. These waste streams have variable flows and enter into the South Retention Basin in order to be held and treated until discharged. The flow from the retention basin is at a constant rate of 600 gpm and the maximum possible flow is 864,000 gpd. The flow rates and volumes of the internal waste streams are inconsequential since the waste streams commingle in the retention basin and the discharge rate is managed through the basin.	The comment is noted. In addition to the information in this comment the Discharger has provided the Regional Water Board with flow information for the retention basin and updated descriptions of the individual waste streams included in the low volume wastes. Section II.A.2.a of Attachment F is edited to include these corrections.	Section II.A.2.a of Attachment F is edited to include corrections provided by the Discharger.

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AES	32	This maximum possible flow should be used for mass calculations. Solution: Remove ambiguous flow volumes (e.g. the definition of in-plant floor drains indicates approximately 500 gpd of equipment wash water, residual oil, and detergent in total for the Facility) and use the total maximum potential flow for the retention basin. AES Redondo Beach will continue to work with the permitting staff to reconcile the flow concerns. Order Location: Attachment F, Section II. A.2.b	The correct description of storm water flow is noted.	Changed
Redondo Beach (Discharger)		Page F-6 & F-7, Stormwater Runoff General Issue: The description of stormwater flow is inaccurate. The stormwater collection for Units 7 and 8 and D1 are reversed. Solution: D1 collects stormwater from the northern portion of the plant and Units 7 and 8 collects from the southern portion.	The word "northern" is changed to "southern" and the word "southeastern" is changed to "northern" in Section II.A.2.b of Attachment F.	storm water flow descriptions in Section II.A.2.b of Attachment F.
AES Redondo Beach (Discharger)	33	Order Location: Attachment F, Section VII.B.1.d and VII.B.2.d - Analytical Methods for PCBs General Issue: For the purpose of assessing compliance with the discharge prohibition for PCBs in the Tentative Order, the RWQCB requires the use of USEPA approved Test Method 608. The RWQCB is also requiring supplemental analysis of PCBs using an analytical method that is not a USEPA approved method in accordance with 40 CFR 136. While the RWQCB explains that the additional testing using	The requirement to monitor and report using both USEPA method 608 and USEPA proposed method 1668c is taken from the Santa Monica Bay TMDL for DDTs and PCBs. The requirement states: "For all discharges with WLAs in Table 6-2, in addition to NPDES monitoring for DDT and PCBs conducted using currently approved 40 CFR 136 methods, to ensure that useable DDT and PCBs data are acquired for effluent characterization under the TMDL, USEPA recommends that the Regional Board	None taken.

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		proposed method 1668c is to gather data to verify assumptions in the TMDL, this request is not appropriate as a condition of AES's NPDES Permit. The testing is expensive, does not provide relevant NPDES Permit compliance information, and has not been approved by USEPA. Solution: AES recommends eliminating the requirement to conduct supplemental analysis PCBs using proposed method 1668c from the Tentative Order. The request to gather additional information using method 1668c is more appropriate for a RWQCB sponsored study or regional/ watershed monitoring program, where the data can be gathered in uniform manner for use in confirming the assumptions in the TMDL.	(and USEPA) require monitoring and reporting using sufficiently sensitive test methods (e.g., USEPA proposed method 1668 for PCBs)." Only method 608 is required to be used for assessing compliance with the effluent limit. If the discharger conducts a special study or conducts other monitoring done for informational purposes, the discharger shall use method 1668c.	D S T D
AES Redondo Beach (Discharger)	34	Order Location: Attachment F, Section IV.B.2- Table F-6 Waste Streams Subject to ELGs General Issue: Table F-6 includes several discrepancies. The Unit 7/8 Boiler Drains and Polisher Regeneration go to the Retention Basin and not Discharge Point 002. The condensate is a low volume waste that should not require monitoring; the condensate is pure steam distilled water at the beginning of the steam cycle. Lastly, as previously explained, the low volume waste streams all commingle into the retention basin and are managed by one compliance point. The individual waste streams and flow volumes are inconsequential.	As discussed in Response to Comment #31 above, the Discharger has provided new information regarding the flow of low volume wastes the retention basin. Table F-6 of Attachment F is updated based on the new information for low volume wastes provided by the Discharger.	Table F-6 of Attachment F is updated based on new information for low volume wastes provided by the Discharger.

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		Solution: Revise the table accordingly.		

